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## PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference E 1055.0	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. PCT/NO 2003/000135	International filing date (day/month/year) 24.04.2003	Priority date (day/month/year) 17.06.2002
International Patent Classification (IPC) or national classification and IPC C04B 24/38, C04B 22/06		

## Applicant

Elkem ASA et al

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a.  (*sent to the applicant and to the International Bureau*) a total of \_\_\_\_\_ sheets, as follows:

sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b.  (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand 05.01.2004	Date of completion of this report 21.09.2004
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer Ulrika Nilsson/MP Telephone No. +46 8 782 25 00

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/NO 2003/000135

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- This report is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- international search (under Rules 12.3 and 23.1(b))
  - publication of the international application (under Rule 12.4)
  - international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished

the description:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

- the description, pages \_\_\_\_\_
- the claims, Nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (*specify*): \_\_\_\_\_
- any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages \_\_\_\_\_
- the claims, Nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (*specify*): \_\_\_\_\_
- any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/NO 2003/000135

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims	<u>3-12</u>	YES
	Claims	<u>1-2</u>	NO
Inventive step (IS)	Claims	<u>6-12</u>	YES
	Claims	<u>1-5</u>	NO
Industrial applicability (IA)	Claims	<u>1-12</u>	YES
	Claims	<u> </u>	NO

**2. Citations and explanations (Rule 70.7)**

The claimed invention relates to a silicon oxide slurry and to a method for producing such slurry.

The aim of the invention is to enable a slurry which has a reduced tendency of settling and which is compatible with cement slurries. For this purpose, the slurry and the method possess the features described in the characterising part of claims 1 and 6 respectively.

The following documents are cited in the International Search Report:

- D1: WO 90/11977 A1 (DEN NORSKE STATS OLJESELSKAP A.S.)
- D2: DE 4 106 380 A1 (SANDOZ-PATENT-GMBH)
- D3: EP 1 078 897 A1 (HALLIBURTON ENERGY SERVICES, INC.)
- D5: US 2002/0059885 A1 (EVELYNE PRAT ET AL)
- D6: US 5 356 671 A (JOSEF F. DRS)

Claims 1-5:

D1 relates to a mixture according to the preamble of claim 1. The mixture may also contain retarders such as cellulose derivates, and filter loss reducing agents such as cellulose derivates e.g. carboxymethylcellulose (p. 8 ll. 4-6, ll. 17-20). The mixture may be used in cement slurries (p. 9 ll. 5-6).

The statement in claim 1 that the polysaccharide is included in the mixture to function as a stabilizer is only a non-distinctive characteristic of a particular intended use, and is therefore disregarded. (PCT/GL/ISPE/12.05)

Consequently, the slurry according to claims 1-2 does not .../...

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

differ from what is revealed in D1 and therefore lacks novelty.

Claims 3-5 are considered to merely express obvious measures to be determined by the skilled person through routine experiments, and therefore do not involve an inventive step.

Claims 6-12:

Regarding claims 6-12, D1 is now reconsidered to only represent prior art since the document does not disclose the special combination of features defined in the invention. It is not clearly stated in D1 that the polysaccharides are added to the slurry of amorphous silica and water before the silica flour is added. It is not considered obvious to a person skilled in the art to modify the known technique in D1 so as to obtain a method such as that claimed in the invention.

D2 is now reconsidered to only represent prior art since the mixture in D2 does not contain silica flour.

D3-D6 only represent prior art.

In view of the arguments stated above, the invention according to claims 1-2 lacks novelty. The invention according to claims 3-6 is novel but is considered to lack an inventive step. The invention according to claims 6-12 is novel and is considered to involve an inventive step. The invention according to claims 1-12 fulfills the criterion of industrial applicability.